Scenario: #1 - Trails/Roads Access Control

Scenario Description:

Restricting access to the use of forest/farm roads and trails by the use of a gate and limited fencing. Resource concerns include Undesirable plant productivity and health, Concentrated flow erosion, Soil compaction, Excessive sediment in surface waters, and Wildlife habitat degradation.

Before Situation:

Roads are damaged or misused, illegal activities occur and/or forest resources are at risk. Extensive amount of fencing (other than that needed to restrict access at the site of ingress) is not included in this scenario, but instead will be planned and installed with the Fence practice (382).

After Situation:

Roads are protected, illegal activities are stopped and/or forest resources are secure.

Scenario Feature Measure: Number

Scenario Unit: Each
Scenario Typical Size: 1

Scenario Cost: \$650.07 Scenario Cost/Unit: \$650.07

Cost Details (by category):				Price		
Component Name	ID	Component Description	Unit	(\$/unit)	Quantity	Cost
	1				1	
	30				100	
Equipment/Installation						
Auger, Post driver attachment	934	Auger or post driver attachment to a tractor or skidsteer. Does not include power unit. Labor not included.	Hour	\$8.59	2	\$17.18
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$38.19	4	\$152.76
Tractor, agricultural, 60 HP	963	Agricultural tractor with horsepower range of 50 to 90. Equipment and power unit costs. Labor not included.	Hour	\$24.08	4	\$96.32
Labor			•	•	·	•
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.48	4	\$97.92
Materials			•	·	·	
Concrete mix, bag		Pre-mixed dry concrete mix in 60 pound bag. Materials only.	Each	\$3.65	10	\$36.50
Gate, Pipe, 12'	1057	6 rail tube gate, 16 gauge. Includes materials and shipping only.	Each	\$164.75	1	\$164.75
Post, Wood, CCA treated, 6" x 8'	12	Wood Post, End 6" X 8', CCA Treated. Includes materials and shipping only.	Each	\$14.96	4	\$59.84
Post, Wood, CCA treated, 3-4" x 7'	9	Wood Post, Line 3-4" X 7', CCA Treated. Includes materials and shipping only.	Each	\$6.20	4	\$24.80

Scenario: #2 - Animal exclusion from sensitive areas

Scenario Description:

Excluding animals from an area in order to address identified resource concerns. This is for facilitating exclusion of animals to protect or enhance natural resource values. Control will be by temporary electric fencing. Any need for permanent fencing will be planned and installed using the Fence practice (382). Clearing of brush and trees is not necessary. Resource concerns include Wildlife Habitat degradation, Undesirable plant productivity and health, and/or Excessive sediment in surface waters.

Before Situation:

Sensitive areas are threatened by the adverse actions of domestic and/or wild animals. The importance of the sensitive areas can include (but are not limited to): wildlife habitat, plant species composition, newly established trees and/or plants, stream bank stability, and/or water quality.

After Situation:

Sensitive areas are protected from the adverse actions of domestic and/or wild animals by excluding them from the area.

Scenario Feature Measure: Length of fence

Scenario Unit: Feet

Scenario Typical Size: 500

Scenario Cost: \$1,038.26 Scenario Cost/Unit: \$2.08

Cost Details (by category):			Price		
Component Name	ID	Component Description	Unit	(\$/unit)	Quantity	Cost
Equipment/Installation						
Fence, Wire Assembly, High Tensile Electric, 5 Strand		Brace pins, springs, strainers, battens, clips, crimp sleeves, staples, insulators, wrap around sleeves. Includes materials and shipping only.	Foot	\$0.18	500	\$90.00
Truck, Pickup	939	Equipment and power unit costs. Labor not included.	Hour	\$38.19	4	\$152.76
Labor						
General Labor		Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.48	20	\$489.60
Materials						
Property/Safety Signs		Plastic Fence safety or property sign - Printed on both sides 6 pre-drilled holes for hanging or nailing. 7.5" x 4.75". Includes materials and shipping only.	Each	\$1.41	35	\$49.35
Post, Wood, CCA treated, 4" x 8'		Wood Post, Line 4" X 8', CCA Treated. Includes materials and shipping only.	Each	\$7.99	10	\$79.90
Mobilization						
Mobilization, small equipment		Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$176.65	1	\$176.65

Scenario: #3 - Forest/Farm Access Control

Scenario Description:

Restricting human access to a field/farm/property through use of signage and other markings. Resource concerns include Undesirable plant productivity and health, Excessive sediment in surface waters, Concentrated flow erosion, and Wildlife habitat degradation.

Before Situation:

A 20 acre tract (field, farm. forests, etc.) is being damaged or misused by illegal activities that put the resources/property at risk or needs controlled access due to an active management operation such as pest management or timber harvesting. The perimeter needs marking with paint (at 100 foot intervals) and signs at points of ingress. Surveying is not necessary.

After Situation:

The property is adequately marked and protected, illegal activities are stopped and/or forest resources are secure.

Scenario Feature Measure:

Scenario Unit: Feet

Scenario Typical Size: 1,500

Scenario Cost: \$317.80 Scenario Cost/Unit: \$0.21

Cost Details (by category): Price **Component Name Component Description** Unit **Quantity Cost** (\$/unit) Equipment/Installation Truck, Pickup 939 Equipment and power unit costs. Labor not included. Hour \$38.19 4 \$152.76 Labor General Labor 231 Labor performed using basic tools such as power tool, Hour \$24.48 4 \$97.92 shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. Materials Tree Marking Paint 313 Trees to be cut through tree marking are physically Acre \$6.43 10 \$64.30 identified through the application of paint on the tree. Typically one quart of paint is used to mark one acre of trees. Includes materials and shipping only. Property/Safety Signs 293 Plastic Fence safety or property sign - Printed on both sides | Each \$1.41 \$2.82 6 pre-drilled holes for hanging or nailing. 7.5" x 4.75". Includes materials and shipping only.

Scenario: #4 - Navigational Delineation

Scenario Description:

Marine bivalve aquaculture operations or restored native oyster reefs located in tidal and subtidal working waters that are controlled by the operator and leased from state local authorities. Growing areas average 2 acres in size and are typically sited in close proximity to other aquaculture operations/facilities, and interface with other resource uses including public boating and swimming. Restored reef areas range in size from 1/4 acres to 1 acre. Reef are being delineated to prevent harvesting since they are located in established sanctuaries. Natural resource concerns addressed by this option include water quality degradation - Excessive Sediment in Surface Waters and Petroleum, Heavy Metals and Other Pollutants Transported to Surface Water, and resulting from uncontrolled access by boats and other human activities. Resource concerns addressed by delineatin restored reefs include: Water Quality Degradation, Excessive Nutrient in Surface Water and Fish and Wildlife – Inadequate Habitat – Inadequate Habitat Cover/Shelter.

Before Situation:

Shellfish aquaculture operations and restored oyster reefs that are located in tidal and subtidal working waters that are controlled by the participant and leased from local authorities are not delineated. The shellfish beds average 2 acres in size and are typically sited in close proximity to other aquaculture operations/facilities, and interface with other resource uses including public boating and swimming. The danger of boats or swimmers accidentally coming in contact with shellfish beds is much greater if beds are not delineated with navigational boundaries. Restored reefs are located in sanctuaries where harvesting is prohibited. It is difficult for recreational users of the tidal areas to know where the sanctuaries are located

After Situation:

Shellfish producer shall install standard navigational delineation devices to mark the boundaries of shellfish growing areas to avoid boat strikes, petrochemical spills, and accidental intrusions by small craft (kayaks) or swimmers. Restored reefs are protected from harvesting since both recreational and commercial harvesters know these areas are protected.

Scenario Feature Measure: Buoy/rope system for delineation

Scenario Unit: Each
Scenario Typical Size: 1

Scenario Cost: \$732.45 Scenario Cost/Unit: \$732.45

Cost Details (by category	·):			Price		
Component Name	ID	Component Description	Unit	(\$/unit)	Quantity	Cost
Labor						
General Labor	231	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$24.48	4	\$97.92
Materials						•
Buoy tether	2038	3/8"polypropylene line (marine quality). Includes materials and shipping only.	Foot	\$0.16	200	\$32.00
Buoy	2037	20" inflatable polyform ball. Includes materials and shipping only.	Each	\$99.27	4	\$397.08
Screw Pin Anchor Shackles, Galvanize-Steel, ¼"	2040	Tether connectors for buoy and anchor. Includes materials and shipping only.	Each	\$3.60	8	\$28.80
Mobilization	•		•	<u> </u>	•	•
Mobilization, small equipment	1138	Equipment <70 HP but can't be transported by a pick-up truck or with typical weights between 3,500 to 14,000 pounds.	Each	\$176.65	1	\$176.65

Scenario: #5 - Hibernaculum Bat Gate

Scenario Description:

Installation of a gate to control access to caves and other natural formation that provide bat roosting and hibernation sites. Bats are most vulnerable when they are hibernating. Human intrusion stirs and wakes up the bats, causing them to deplete their fat supplies at an accelerated rate and reducing their chances of surviving the winter. Gating hibernacula entrances to prevent trespass is one of the chief measures of protecting bat species. Additionally, gates prevent human access to dangerous and unstable mines, reducing chances of serious accidents. Gates allow bats to pass through, don't interfere with air circulation, and prevent unauthorized access.

Before Situation:

Caves and other natural formations that provide roosting and hibernating habitat have can be accessed during all times of the years. Access by humans for recreation disturbs the bats during critical life cycles. This can cause a decrease in population of these important animals.

After Situation:

Hibernaculum gates are are installed to control access to important bat roosting and hiberating sites. The controlled access will help protect the colonies of bats

Scenario Feature Measure:

Scenario Unit: Square Foot Scenario Typical Size: 100

Scenario Cost: \$7,778.93 Scenario Cost/Unit: \$77.79

Cost Details (by catego	ory):			Price		
Component Name	ID	Component Description	Unit	(\$/unit)	Quantity	Cost
Materials						
Bat Gate	1129	Bat Gate Assembly, Includes materials, equipment and labor.	Square Foot	\$71.90	100	\$7,190.00
Property/Safety Signs		Plastic Fence safety or property sign - Printed on both sides 6 pre-drilled holes for hanging or nailing. 7.5" x 4.75". Includes materials and shipping only.	Each	\$1.41	1	\$1.41
Mobilization						
Mobilization, Material, distance > 50 miles	1043	Mobilization cost of materials for special cases where the distance from the supplier delivery point to the job site exceeds 50 miles. The costs for shipping by UPS or bulk freight shipping to a location within 50 miles of the job site have already been included in the component price.	Dollar	\$1.03	500	\$515.00
Mobilization, very small equipment	1137	Equipment that is small enough to be transported by a pick- up truck with typical weights less than 3,500 pounds. Can be multiple pieces of equipment if all hauled simultaneously.	Each	\$72.52	1	\$72.52

Scenario: #6 - BioSecurity Access Control

Scenario Description:

Restricting access in the use of farm roads by the use of signage, a gate and limited fencing. A well-constructed and maintained operation strengthens a biosecurity plan by aiding cleaning and disinfection processes and by reducing the risks associated with visitors, service personnel, and pests. Resource concerns include Domestic Animals - Stress and Mortality.

Before Situation:

People, vehicles and equipment entering and moving unrestricted within the farm pose a serious biosecurity threat; they can carry pests, soil, and crop debris. The risk is increased with shared, contracted, and second-hand vehicles and equipment, due to their use on other farms with unknown biosecurity status. Care must also be taken with people's activities, non-agricultural vehicles and equipment that must travel within the farm (e.g. earth-moving equipment, gas exploration equipment, utility service vehicles).

After Situation:

Access of people and vehicles is controlled aiding in the cleaning and disinfection processes and by reducing the risks associated with visitors, service personnel, and pests.

Scenario Feature Measure:

Scenario Unit: Foot

Scenario Typical Size: 50

Scenario Cost: \$1,287.34 Scenario Cost/Unit: \$25.75

Cost Details (by category): Price **Component Name Component Description** Unit **Quantity Cost** (\$/unit) 1079 50 Equipment/Installation 2 \$17.18 Auger, Post driver attachment 934 Auger or post driver attachment to a tractor or skidsteer. Hour \$8.59 Does not include power unit. Labor not included. 939 Equipment and power unit costs. Labor not included. \$38.19 \$305.52 Truck, Pickup Hour Tractor, agricultural, 60 HP 963 Agricultural tractor with horsepower range of 50 to 90. Hour \$24.08 lл \$96.32 Equipment and power unit costs. Labor not included. Labor General Labor 231 Labor performed using basic tools such as power tool, Hour \$24.48 16 \$391.68 shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc. Materials Concrete mix, bag 1226 Pre-mixed dry concrete mix in 60 pound bag. Materials Each \$3.65 10 \$36.50 only. Property/Safety Signs 293 Plastic Fence safety or property sign - Printed on both sides \$1.41 10 \$14.10 Fach 6 pre-drilled holes for hanging or nailing. 7.5" x 4.75". Includes materials and shipping only. 12 Wood Post, End 6" X 8', CCA Treated. Includes materials Post, Wood, CCA treated, 6" x Each \$14.96 \$59.84 and shipping only. Gate, Pipe, 12' 1057 6 rail tube gate, 16 gauge. Includes materials and shipping Each \$164.75 1 \$164.75 only. Post, Wood, CCA treated, 3-4" 9 Wood Post, Line 3-4" X 7', CCA Treated. Includes materials Each \$6.20 \$24.80 x 7' and shipping only. Mobilization Each Mobilization, small equipment 1138 Equipment <70 HP but can't be transported by a pick-up \$176.65 1 \$176.65 truck or with typical weights between 3,500 to 14,000 pounds.